LED MULTI-FUNCTION LIGHT
PMF LED-HI-SIL

Multifunction light with most modern and ultra-bright LED technology

- the warning devices can be implemented in Safety Instrumented Systems (SIS) up to **SIL 2/PL d**
- to signal dangerous situations in safety-related application such as **process and plant safety**, e.g. leaks / gas warning / high-pressure / overfilling and **machine safety**, e.g. start-up warning / muting indication / machine stop delay warning
- with 315 cd flash brightness for large areas and outdoors
- highly insensitive to vibration with service life exceeding 50,000 hrs
- 3 different signaling modi selectable:
    - blinking light, highly efficient for permanent warning
    - flashing light, brighter than comparable xenon flashing light
    - rotating beacon effect, without susceptible mechanics
- extremely low power consumption
- as standard with inrush current limitation and flexible wide range power supplies
- automatic brightness adjustment to ambient light (day / night switching) can be activated to prevent glare
- up to 2 out of 4 quadrants can be switched off, energy-saving and for directional signaling

SIL 2/PL d: All safety technical key data can be found in the manual

IP 55	+55 °C / −40 °C	Ultra bright	day / night	Inrush current limitation	EAC
protection system	operating temperature	Ultra bright	day / night	Inrush current limitation	

PRODUCT	PMF LED-HI-SIL		
DATA			
Rated voltage	12 / 24 V DC		
Operating range	10 - 30 V DC		
Current consumption — flash 1 Hz	300 mA		
Current consumption — diagnostics channel	35 mA		
Alarm contact — contact version	positively driven contact (1 x NC, 1 x NO)		
Alarm contact — switching version	max. 3 A		
Alarm contact — switching voltage	max. 250 V AC		
Alarm contact — max. switching power	750 VA AC		
Alarm contact — recommended min. load	>50 mW		
Operating mode	Blink	flashing light	rotating mirror effect
Flash rate of the main flash	1.5 Hz	1 Hz	2.5 Hz (150 rpm)
Light source	8 x 2 high performance LEDs		
Light intensity (DIN 5037) [1]	315 cd, automatically reducible (day / night operation)		
Max. viewing distance	411 m		
Beam angle	vertical ca. 12°, horizontal 360°		
Operating temperature	−40... +55 °C		
Storage temperature	−40... +70 °C		
Relative humidity	90 %		
Protection system (EN 60529)	IP 55 (vertical mounting)		
Service life of the light source	>50,000 h		
Material — housing	polycarbonate (PC), fresnel characteristic		
Material — lens	bracket mounting: polycarbonate (PC) / direct mounting: acrylonitrile butadiene styrene (ABS)		
Cable entry	M20 x 1,5		
Connecting terminal	cage clamp 0.2 – 2.5mm²		
Weight	direct mounting: 660g / bracket mounting: 940g		

[1] with a clear lens

ARTICLE-NR.	PMF LED-HI-SIL direct mounting	PMF LED-HI-SIL bracket mounting
LENS COLOUR	12 / 24 V	12 / 24 V
🟠	21154634006	21154634007
🔴	21154635006	21154635007

Article numbers for other colours on request.

DIMENSIONS

bracket mounting	direct mounting

170.5

M20x 1.5

75

4

6.5

45

90

50

50

185

45

8.5

threaded bushing M5

Ø 130

Ø 177

Ø 5.5

10
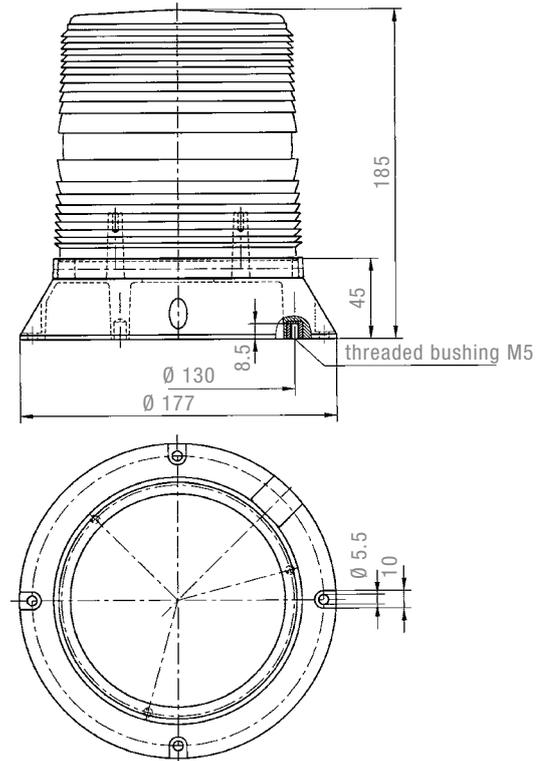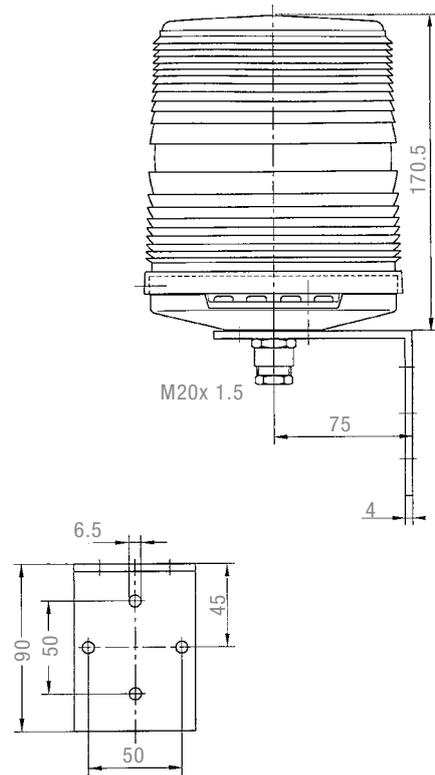
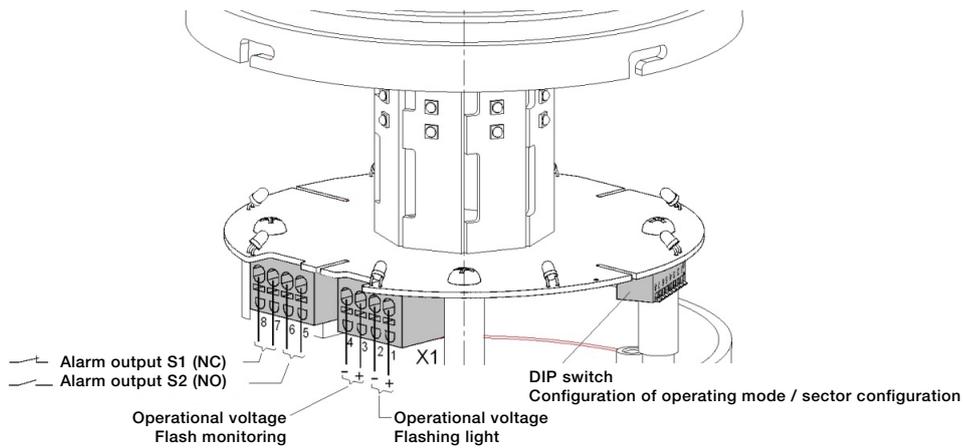| Drilling template 1 for M5 threaded bushing	Drilling template 2

120°

Ø 5.5

Ø 130

120°

Diameter variable depending on cable entry
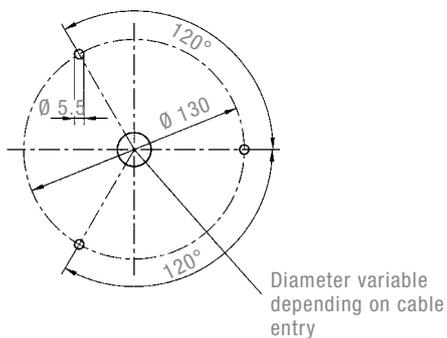
Two different drilling templates are available for fixing the light (direct mounting). M5x 8 threaded bushes are set into the base of the light for fixing according to drilling template 1. Drilling template 2 allows the light to be fixed using 4 through bolts or similar from above.

Diameter variable depending on cable entry

Ø 5.5

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SIGNALING TECHNOLOGY

CONNECTION DIAGRAM

Alarm output S1 (NC)
Alarm output S2 (NO)

8 7 6 5   4 3 2 1   X1

Operational voltage
Flash monitoring

Operational voltage
Flashing light

DIP switch
Configuration of operating mode / sector configuration
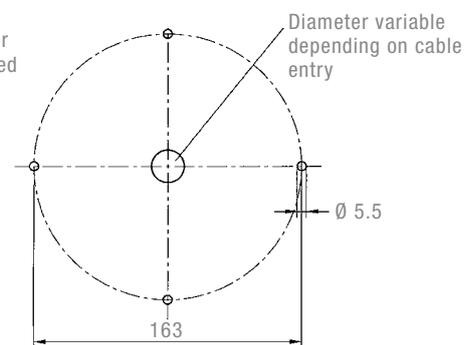
CONFORMITY TO STANDARDS

The visual characteristics of LED lights conform to the European standard DIN EN 842; **"Machine safety – visual alarm signals".**
Requirements contained in the DIN EN 981 standard; **"Machine safety – system of acoustic and visual alarm and information signals",** can be fulfilled.

The colours "red" for the emergency signal and "yellow" for the warning signal conform to the requirements of IEC 73 / DIN EN 60073 / VDE 0199; **"Coding of display devices and control elements using colours and supplementary means".**

References to visual alarm devices can be found in the following standards:
EN 60825-1   Radiation safety of laser devices, identical to IEC 825 and DIN-VDE 0837
DIN EN 54   Fire alarm systems
DIN 54113-2   Radiation protection regulations for the technical operation of X-ray equipment up to 500 kV